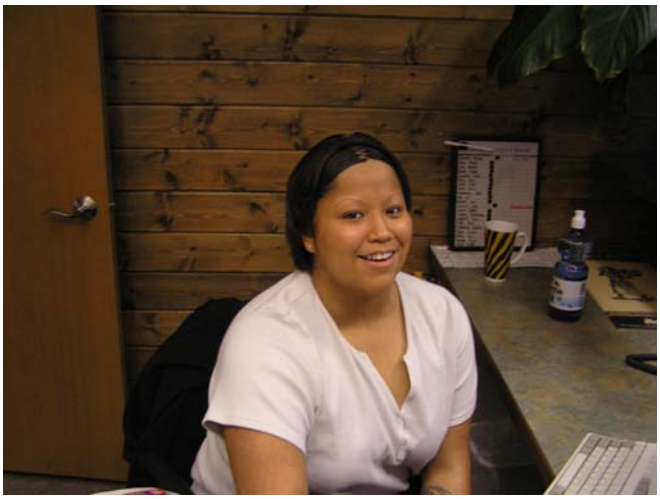
WATERSHED WRAP

Quarterly Newsletter from the Coeur d'Alene Tribe's Fish & Wildlife Program describing watershed management efforts. Offering readers food for conversation and paper for wrapping!

Winter Solstice 2004 (Vol. 8, No. 4)

The Coeur d'Alene Tribe's Fish and Wildlife Programs work in a variety of cooperative, governmental, and educational arenas in efforts to protect, enhance, and restore our fish and wildlife resources. This publication is intended to provide all people interested in the natural resources of the Coeur d'Alene Reservation information about the various programs, and to solicit your support as well as constructive criticism. The Bonneville Power Administration provides funding for this newsletter.

Thank you for your interest.
Respectfully,
Mark H. Stanger, Education & Outreach Specialist



Fisheries New Hire
By Raven C. George, Clerk/Receptionist

Hello everyone, my name is Raven George. I've been hired to fulfill the Clerk/Receptionist position in the Fish, Water, Wildlife, & Lake Management office building. Prior to joining the Fisheries program, I was a laborer working construction on Highway 95 and part time at the Tribal Enrollment Office. My parents are Oswald "Ozzie" George and Alieene "Boom" George.

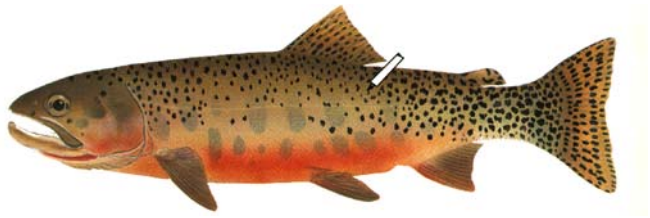
My dad and I both drag race ¼ mile track every summer except last. Drag racing makes me look forward to summertime each year. I'm "daddy's girl" so whatever he's doing I do too! I love watching basketball and baseball during the seasons. I always make sure to put a time in to visit and play with my nieces and nephews.

I've been working with the programs for four months now. It's not only been a great learning experience, but a lot of fun. I've learned quiet a bit thus far and have enjoyed every bit of it. I issue the Hunting and Fishing licenses and tags, Fishing Tournament permits, and Heyburn State Park passes.

I'm happy to have met those that have been in our office since I've been here and look forward to meeting many more. Thank you for your time and have a great day!

Coeur d'Alene Tribe receive steelhead trout from the Nez Perce Tribe
By Jeff Jordan, Fisheries Biologist

The Nez Perce Tribe Fish and Wildlife Commission (FWC) have donated several hundred steelhead trout to the Coeur d'Alene Tribe (Tribe) during the 2004 fall & winter. The FWC has annually donated steelhead and salmon (if available) to the Tribe. The fish become available after Nez Perce Tribal members receive their portion and the remainder become surplus and donated to various outside entities. The fish usually come from the Oxbow on the Snake River.



Personnel from the Tribes' Fish, Water, Wildlife and Lake Management (FWWLM) usually travel to Lapwai to take delivery of the fish at the FWC office and occasionally the FWC will deliver locally. Upon return to the Coeur d'Alene Reservation fish are distributed to the Older Americans Program, special interest groups/functions, and to the general population.

The FWWLM personnel processed the fish that the Older Americans receive. Fish distributed to the general population are in the round form (not cleaned). Occasionally fish are smoked in the Tribes' mobile smoker and generally distributed to the Older Americans Program with spices of their choice.

The FWWLM attempts to distribute fish in a fair manner, although we are limited to what we can do and try to make fish available to those who want them. If you have special needs or would like to request fish please contact the FWWLM office and we will make an attempt to accommodate your needs call Raven George at 208-686-5302.

Plummer/Worley students were taught how to dig Water Potatoes on the lakeshore.

Youth Learn about Water Potatoes and other Natural Resources

By Mark H. Stanger, Outreach & Education

It seems like every fall the weather is either very cold or raining really hard which makes a very interesting day for our youth at the Water Potato Day Celebration. As usual this year there were schools from on and off the reservation that participated in this event.

There were tribal elders that came down to tell stories about how they used to collect and eat water potatoes from this same area. All the teachers and students really enjoyed themselves. Some of the students had said, "This is the best time of year, when they get to go play in the mud and don't get in trouble for getting all muddy from head to toe, learning about plants and animals of the outdoors, and getting out of the classroom was the best." Some of the stations the students were circulated through included Tribal Culture, Language, Plant Identification, and Wildlife Habitat Usage.

This year there were over 350 students, parents and teachers that attended our workshop. Even with the rainy days, we still had a good turn out! I want to thank all the students, parents, teachers and elders that came to our workshop this year.

Rails to Trails end of season notes

By Dean Chapman, Trail Manager

The people of North Idaho Panhandle are reaping the benefits for supporting the conversion of UPRR's Historic Wallace Branch-line and promoting the 72-mile non-motorized pedestrian trail known as the Trail of the Coeur d'Alenes. The trail runs through 12 municipalities, as it follows the Coeur d'Alene River and the adjacent lateral lakes and associated wetlands in the Coeur d'Alene River Basin. The trail begins a southwest direction where the Coeur d'Alene River empties into Lake Coeur d'Alene at Harrison, Idaho, and hugs the shore of the Lake before crossing the lake via the retrofitted Chatcolet Bridge. On the west side of the lake the trail winds through Heyburn State Park and through a remote forested canyon before Plummer.

The western end of the asphalt trail reaching the town at the Plummer Trailhead, which is located on the north side of town, adjacent to State Highway 95. The trail ends 72 miles to the northeast in Mullan, Idaho. Construction was completed in the early summer, 2004 with exception given to the Plummer Trailhead.

Current amenities at the Plummer Trailhead include a 75-unit parking lot with overhead lighting, a men's & women's flushing restroom facility, security lights in the tunnel going underneath Highway 95, architectural structure and trail map panel next to restroom, and landscaping. This coming year, 2005, our goal will be to install a drinking fountain, a few picnic tables & benches, and possibly some additional landscaping around the trailhead. Sometime after the Tribe's Rails to Trails Program will install interpretive panels depicting the Coeur d'Alene Tribal history and culture along with awareness of local environments and wildlife.

South of the Trailhead is the Town of Plummer with a variety of businesses such as a grocery store, restaurants, gas stations, motel, medical center, health fitness facility, auto mechanic, childcare facility, lumber mill, Middle/high School and the Coeur d'Alene Tribe Headquarters.

The impact of the trail has already been good for local businesses. Some new businesses have opened and /or plan on opening soon in communities located adjacent to the trail. Some new businesses opened during the start of construction in 2000, include bicycle shops, a delicatessen, and a gift shop. Existing businesses along the trail report increased sales, extended hours, and newly hired staff. As trail use climbs, so does the demand for lodging, food, and athletic gear.

During the summer of 2004 the eight-mile section of trail between Plummer and Heyburn was

open to the public. After the Chatcolet Bridge was completed in June 2004, the entire 72 miles was opened for use. Trail use has been steady throughout the summer with the Plummer Trailhead parking facility typically half full. There is no trailhead fee at the Plummer Trailhead. Local agencies, communities and visitors believe economic growth related to use of the trail will continue. The majority of trail users in this area have been adults and families. It has become a place to meet friends and a place to reconnect to oneself at a slower pace.

Lake Vegetation Study Underway
By Dave Lamb, Biologist

Thanks to funding from the US EPA, and a project approval by the Coeur d'Alene Lake Watershed Basin Commission, the CDA Tribe's Lake Management Department staff has begun a baseline-level survey of aquatic vegetation in Chatcolet, Benewah and Round Lakes. Since such a study has never been performed before, either in these shallow lakes or in Coeur d'Alene Lake proper, it is viewed as an important effort to shed some light on the extent of submersed plant growth. An effort is also being made to estimate potential nutrient (phosphorus and nitrogen) release from the aquatic plant beds as this is an important concern for the overall health of these lakes.

The fieldwork for the first year of this study centered on two efforts – plant sample collection along transects and species assessment at grid intersections. The plant sample collection utilized SCUBA divers to swim along 22 transects which generally extend from the shore out to the depth where no plants grow (usually about the 14 foot depth). The divers collected plant material at each foot of depth along the transect using a "quadrat", an 18-inch square device that is placed on the lake bottom that provides a standard sampling area. All plants present within the quadrat are collected and brought to a support boat to be sorted by species. Each separate species from each sample is then sent to a laboratory for drying and weighing -- this gives the "biomass" of the species at the sampled location -- and also on phosphorus and nitrogen content. The grid sampling allows for additional data on plant species distribution to be collected. This work followed the diver work and was accomplished by throwing a "rake-on-a-rope" from a boat, hauling it back and noting each species collected.

An additional focus of this study is to document the presence of any noxious aquatic weeds within the three-lake study area. Of particular concern is the plant Eurasian milfoil that has been found in several other local lakes (Liberty, Newman, Hayden, and Spirit Lakes to name a few). This type of plant is very invasive and tends to eliminate other submersed plants, and the habitat they provide, by growing above these and shading them out. Eurasian milfoil also can cause hindrance to boating and hazards to swimming if left unchecked. So, the Lake Management divers inspected all existing boat launches in these three lakes (because this is typically where these noxious aquatic weeds are introduced into lakes from boat trailers). The result of this effort was that both native and noxious Milfoils were found throughout these lakes and, unfortunately, the Eurasian Milfoil has become dominant in several areas. What this means to the future use of these shallow lakes is not clear but the findings of the study to date are going to be presented to the Tribal Council so that management options can be developed.

This Lake Vegetation Study project is just now getting started so no other results are yet available. The field sampling will be repeated next year to try to shed light on year-to-year variation in plant populations. Project results will be reported in future articles in Watershed Wrap. If there are any questions about this study or about aquatic vegetation, feel free to contact me at 208-686-6206 or e-mail dlamb@cdatribe-nsn.gov.

Elk Monitoring Project Update
By Nathan Albrecht, Wildlife Biologist

An article in the Spring 2004 edition of the Watershed Wrap (Vol.# 8, No. 1) discussed the initiation of a new Tribal Elk Monitoring project. This project began in the early winter of 2004 with the help of a grant from the Rocky Mountain Elk Foundation. One objective of this project is to learn more about how the elk are using areas of the Reservation, so that high priority areas can be protected in the future. Other information gained from this project could be coupled with data from Idaho Department of Fish and Game (IDFG) to get an estimate of population size and structure on the Reservation. A significant amount of data has been collected since then, yielding some interesting preliminary results.

The Wildlife Program has logged a total of approximately 300 locations from the 6 elk that were radio-collared last winter. All of these locations have been downloaded into GIS mapping software for analysis. Since there isn't yet a full season of data, no significant conclusions can be drawn from it. However, it is now possible to see the potential insight into the Tribal elk population this information may give, once several seasons of data are collected.

One potential use of these telemetry locations is to document the movements of elk on the Reservation. Of the 6 elk that were collared last winter, 3 have remained in the vicinity of the trap sites, and the other 3 have made substantial migrations. One elk that was trapped in the Benewah Valley migrated to Lovell Valley in the spring, and has remained there since then. One elk that was trapped near Sanders has migrated all the way to Turnbull National Wildlife Refuge near Cheney, Washington. In addition, 2 elk that were trapped and radio-collared by Washington Fish and Wildlife near Turnbull have migrated just north of the Reservation near Mica Peak. This has allowed the Wildlife Program to add these 2 elk to Tribal Elk Monitoring project, and also has allowed staff from Turnbull to add an elk to their elk monitoring project. It will be interesting to see if these elk will return to the areas where they were trapped this winter, or if they will stay in the areas that they've migrated to. Once more seasons of telemetry are conducted, it may also be possible to identify the migration corridors that these elk use along their way.

Another potential use of this data is to gain insight into the components of elk home ranges. In general, elk are known to be somewhat migratory, utilizing specific habitats in the winter, migrating to different areas for calving season, and perhaps migrating again for the summer months. This has been observed with some of the elk in this study, however others have remained in the same general vicinity of their trapping location for the entire year. This is evident when one looks at their home range sizes, ranging from 8,400 acres to 57,000 acres.

A useful tool that can be used to identify high priority habitat for an individual elk is called a kernal analysis. This analysis takes a closer look at the clusters of locations inside an individual animal's home range, and groups some of these clusters as "core areas". The Wildlife Program has begun using this analysis on some of the collared elk, and has obtained some interesting results. For instance, the elk that was collared in Benewah Valley and then migrated to Lovell Valley appears to have 3 core areas. The first area is near the trap site, where the elk remained throughout the winter. The second is a particular area in Lovell Valley that the elk migrated to in the spring, and remained there through calving season. The third is another area in Lovell Valley where the elk has remained all summer. With more seasons of data, the Wildlife Program may be able to look at the habitat attributes in these specific core areas, and identify other areas on the Reservation that contain these same attributes. These areas could then be labeled as high-quality elk habitat for certain seasons, and steps could be taken to maintain those areas in the future. In addition, biologists could use the habitat attributes from these core areas to help guide restoration efforts focused on improving quality habitat for big game.

These preliminary results are certainly encouraging. The Wildlife Program plans on conducting a more extensive trapping effort this coming winter, hopefully collaring as many as 30 elk. In addition, 4 of the elk that will be trapped will be fitted with GPS radio-collars, which automatically log the GPS coordinates of the elk several times every day. This will be very useful in pinpointing good elk habitat and migration corridors. Please feel free to contact Nathan Albrecht in the Tribal Wildlife Program with any questions or comments about this project. 686-7042.

TMDL Update

By Dee Bailey, Water Quality/TMDL Specialist

On November 4th, 2004 staff from the Tribe's Fish, Water, and Wildlife Programs held the third Hangman Watershed Group meeting at the Tensed Community building. Nine people from the Hangman Watershed were in attendance. Topics of discussion included how the Spokane Total Maximum Daily Load (TMDL) for dissolved oxygen might play a role in the development of the TMDL for Hangman Creek. At stateline, dissolved oxygen during the months of July and August for Hangman Creek is below the proposed 8.0 mg/L.

Another topic was how the Tribe's Wildlife Program is in the process of purchasing approximately 1500 acres. Once a management plan is written projects for this land might include wetland restoration along with restoring the riparian habitat and upland areas. A similar project is currently under way in the Benewah Watershed.

The Fisheries Program highlighted the fish data that was collected earlier this year and how they would like to see instream habitat improved from Nehchen to Indian creeks on the main stem, as this

would allow these fish populations to reconnect. Another project might include adding Large Woody Debris (LWD) to the headwaters of Hangman to create pools, which would allow the fish some refuge during the hot summer months as stream temperatures rise.

Hangman Creek Stream flowing in the springtime.

The underlying theme throughout this meeting was that we can't accomplish the above goals for Hangman unless we get landowners involvement. Between the Tribe and the Benewah SWCD there are ways to cost share projects but everything is on a voluntary basis.

If you would like more information about the Hangman Watershed Group, would like to be added to the mailing list or would like to discuss restoration projects on your property and what cost sharing options would work please feel free to contact ***Gerry Green (Wildlife) 686-0312, Bruce Kinkead (Fisheries) 686-6071, or Dee Bailey (Water Quality) (208) 686-1803 or email us at, ggreen@cdatribe-nsn.gov, bkinkead@cdatribe-nsn.gov, or dabailey@cdatribe-nsn.gov.*** Thanks and we look forward to working with you. Our next meeting is tentatively scheduled for the middle of February 2005.

Hangman Hydrology

By Gerald I. Green, Wildlife Biologist

It is common knowledge that Chinook salmon made their way up Hangman Creek to at least as far as Tekoa to spawn prior to the building of the Little Falls Dam in 1909. Given the current condition of Hangman Creek it is difficult to imagine that salmon could have ever existed within that watercourse. Stream conditions that allow salmon to survive are much different than the conditions that are currently found in Hangman.

Prior to the modern agricultural era extensive wetlands within the floodplain of Hangman Creek supported a diverse plant community and held water in the landscape much as a sponge would hold water. As the surrounding landscape dried during the summer, the water was released from the wetlands into the streams. We know from maps of historic soils where the wetlands occurred, but we don't know what amount of water they were capable of storing and ultimately releasing into streams that would otherwise dry up during the summer, as they do now.

The Coeur d'Alene Tribe recently was awarded an Environmental Protection Agency grant to study the extent to which the drained wetlands along Hangman Creek could support stream flows. The network of tiles and drainage ditches within the Hangman Floodplain will be mapped and the details of the drainage systems will provide data to allow a modeling effort to predict stream flows that we can expect if the drainages are removed.

Mapping of stream courses within the Hangman Watershed has already been initiated and the fieldwork to map the artificial drainage systems will begin as soon as the weather permits in the spring.

This work to predict the effects of wetlands restoration on stream conditions represents a new effort for the Wildlife Program staff and is well outside the normal duties that are considered wildlife oriented. But wildlife cannot flourish without habitat, and water and how water moves through the landscape is a vital part of that habitat.

If you have any concerns or comments regarding the study of the Hangman Creek drainage through this EPA Grant please feel free to contact Gerry Green at the Coeur d'Alene Tribal Wildlife Program at 208-686-0312.

Preview Next Year's Projects

By Stephanie Hallock, Fisheries Biologist

The planning for next year's stream restoration projects on the Coeur d'Alene Lake tributaries has begun. The four main watersheds that have been a focus of current watershed restoration work are Alder, Benewah, Evans, and Lake creeks. These watersheds represent the wide range of landscapes present on the reservation. We will be continuing work on the tribal property purchased along Benewah Creek in 2001 (deemed the 'ELTUMISH PROJECT). This October a topographic survey of the lower portion of the property was completed. We hope to use this data to help us modify the lower portion of Benewah Creek that runs through the property so that it is able to access its adjacent floodplain. This in turn will reduce bank erosion, create better fish habitat, increase spawning potential, and will lower water temperature through increased vegetative growth and increased interaction with groundwater.

Another project we are planning is to replace a stream crossing in the North Fork of Alder Creek with a bridge. This will eliminate a fish passage barrier and improve connectivity with the upper channel reaches. We are also planning on doing some channel modification and large woody debris placement in Evans Creek. This will help create pools, provide cover, and catch sediment. Possible restoration work in the Lake Creek Watershed includes channel modification on a heavily entrenched and eroded section on the west fork of Lake Creek. We plan on finishing preliminary design work on these projects this winter. These projects will be included in a scope of work document to be presented to the Bonneville Power Administration in February 2005. Funding for these projects will commence in June 2005 and construction will occur during the summer.

Our main goal in all of these projects is to increase the populations of native Westslope Cutthroat trout. Finding ways to decrease water temperature, decrease overland and bank erosion, introduce large woody debris, and increase riparian and wetland habitat will help this goal be accomplished.

Air Quality Update

By Les Higgins, Air Quality Manager

Time to batten down the hatches and prepare for the snow to fall, but is your house ready? This time of the year we all try to save money on our utility bill by "weather proofing" our homes and do our best to keep the heat in and the cold out. But what does this do to the air we breathe in our homes over the next few months until we are able to open our windows and let the fresh air in again in the spring? Depending on how many people are in your family, your home could be subject to higher levels of moisture, dust, pet dander, chemicals, wood smoke and /or second hand smoke. This could affect anyone with upper respiratory problems or young children that are still developing. Proper ventilation is needed during winter months to maintain a healthy home and comfort zone for everyone. Exhaust fans placed in the bathroom are there to help reduce the moisture from showers and regular use. If you have evidence of mold or mildew occurring now, it will only continue until a change is made to correct its source. If you have concerns in your home, we have information that will help you correct indoor air issues and make it a healthy environment for all that live there. You can contact me at 686-8101 or lhiggins@cdatribe.com.